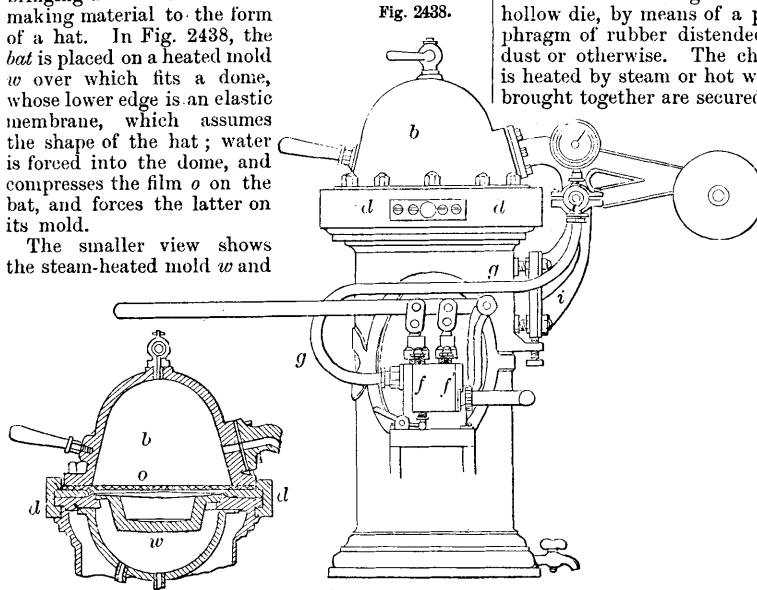


Hat-pressing Machine. A machine for bringing a *bat* or *cone* of hat-making material to the form of a hat. In Fig. 2438, the *bat* is placed on a heated mold *w* over which fits a dome, whose lower edge is an elastic membrane, which assumes the shape of the hat; water is forced into the dome, and compresses the film *o* on the bat, and forces the latter on its mold.

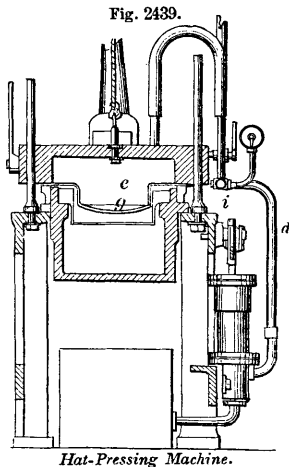
The smaller view shows the steam-heated mold *w* and



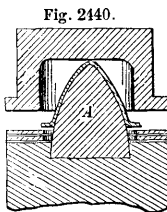
Simonet's Hat-Pressing Machine.

dome *b* in section, while the larger view is a side elevation. *f, f'* are the force-pumps by which water is forced into the dome *b* through the bent pipe *g* and trunnion-tube *c*, which is on an adjustable bracket *i*; the mode of connection allowing a vertical motion to the dome in closing and opening, and a horizontal motion when securing the foot of the dome in the ring *d* by means of a bayonet-joint attachment.

In Fig. 2439, the hat *g* is shown in process of extension downward to fill the hat-shaped mold. The pressure of water is at the first derived from a head, but as greater force is required, the cistern tap is closed and the force-pump is



Hat-Pressing Machine.



Hat-Press.

brought into action, injecting water through pipe *d* into the dome *e*; at *i* is a connection with a manometer which indicates the pressure.

In Fig. 2440, *A* is a compressible block of rubber, which, under pressure, expands to fill the whole interior of the hollow die and press the hat-cone

against the surface, while the brim is held between yielding surfaces which preserve its shape.

Fig. 2441 is a machine in which a paper, straw, or cloth hat is brought into the desired form in a hollow die, by means of a plunger formed of a diaphragm of rubber distended by packing with sawdust or otherwise. The chamber *C* behind the die is heated by steam or hot water, and the parts when brought together are secured by a bayonet-joint.